

Title: Public Health Intervention Responsive Studies Team (PHIRST) @ LiLaC (Liverpool and Lancaster Universities Collaboration for Public Health Research)

RESEARCH REFERENCE NUMBER: NIHR135188

PROTOCOL VERSION NUMBER AND DATE. Version 1: 06/06/2022

FUNDERS Number: NIHR135188

NIHR | National Institute
for Health Research

Lancaster
University 

 UNIVERSITY OF
LIVERPOOL

This study/project is funded by the National Institute for Health Research (NIHR) PHR programme (**NIHR135188**). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

SIGNATURE PAGE

The undersigned confirm that the following protocol has been agreed and accepted and that the Chief Investigator agrees to conduct the study in compliance with the approved protocol and will adhere to the principles outlined in the Declaration of Helsinki, the Sponsor's SOPs, and other regulatory requirement.

I agree to ensure that the confidential information contained in this document will not be used for any other purpose other than the evaluation or conduct of the investigation without the prior written consent of the Sponsor

I also confirm that I will make the findings of the study publicly available through publication or other dissemination tools without any unnecessary delay and that an honest accurate and transparent account of the study will be given; and that any discrepancies from the study as planned in this protocol will be explained.

Chief Investigator:



Date:
22/02/2022

Signature:

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Name: (please print): Professor Ben Barr
.....

1 Key study contacts

Chief Investigators

Ben Barr
Professor in Applied Public Health Research
Public Health, Policy and Systems
Institute of Population Health,
University of Liverpool,
Whelan Building, The Quadrangle,
Liverpool L69 3GB,
United Kingdom
b.barr@liverpool.ac.uk

Emma Halliday
Senior Research Fellow
Health Innovation One
Sir John Fisher Drive
Lancaster University
LA1 4AT
United Kingdom
e.halliday@lancaster.ac.uk

Co-Investigators:

Matthew Ashton, Director of Public Health, Liverpool City Council
Karen Broadhurst, Professor of Social Work, Lancaster University
Iain Buchan, Chair in Public Health and Clinical Informatics, Liverpool University
Irum Durrani, Public Adviser, Applied Research Collaboration North West Coast
Bruce Hollingsworth, Professor of Health Economics, Lancaster University
Sakthi Karunanithi, Director of Public Health, Lancashire County Council
Jennie Popay, Distinguished Professor, Lancaster University
Sarah Rodgers, Professor of Health Informatics, Liverpool University
David Taylor-Robinson, Professor of Public Health and Policy, Liverpool University

2 Study Steering Group:

The role of the Steering Group will be:

- To provide advice, through its Chair, to the Project Funder, the Project Sponsor, the Chief Investigator, the Host Institution and the Contractor on all appropriate aspects of the projects
- To concentrate on progress of the projects, adherence to protocols, patient safety (where appropriate) and the consideration of new information of relevance to the research questions
- To ensure appropriate ethical and other approvals are obtained in line with the project plans
- To agree proposals for substantial amendments to protocols and provide advice to the sponsor and funder regarding approvals of such amendments
- To provide advice to the investigators on all aspects of the evaluation studies undertaken by PHIRST @ LiLaC.
- To contribute to the prioritisation of local evaluation studies to be undertaken by PHIRST @ LiLaC
- To oversee progress towards milestones
- To support the team in maximising the impact of PHIRST research through links with practice, public and policy networks

3 Plain English Summary

Aim: Local authorities have an important role in improving the health of the residents they serve. This is because many services and initiatives they run, such as housing, transport and education can affect people's health. Local authorities, however, do not always have the evidence they need to make the best decisions about how to invest their resources to improve the health and wellbeing of local people. To tackle this problem, the National Institute for Health Research (NIHR) has set up Public Health Intervention Responsive Studies teams (PHIRST) around the UK to undertake research with local authorities. These teams provide information about how a local authority service or initiative is delivered and the impact it has on local people. This involves a type of research known as evaluation.

Approach taken: Our PHIRST researchers from Liverpool and Lancaster universities will work with members of the public and local authority staff as partners to deliver these evaluations. For each evaluation, our researchers will first work with the local authority and public advisers to make sure the research meets their needs. We will consider how well the initiative addresses differences in health between different social groups (e.g., age, ethnicity or gender). We will check that the right data are available to do the work properly. Then, if it is agreed with NIHR that the evaluation should go ahead, a project team will be brought together involving the participating local authority, researchers and representatives from communities where the initiative is being delivered. The project team will write a plan for the evaluation and then deliver the research on time and within the agreed budget. The team will use a variety of approaches such as: interviewing members of the public and professionals to gather their views; and analysing data from services and organisations to understand how well interventions are working, whether they are good value for money, and whether they are available to all people fairly. We can involve people and organisations from our extensive networks who have specialist knowledge as required.

Public involvement: We believe that everyone has the right to have a voice in research affecting their lives. A central group of public advisers will be involved in our team's decision making and as members of its Steering Group. They will work with researchers to make sure that high quality involvement happens throughout our work. Members of the public living, studying or working in neighbourhoods or settings where the research takes place, will also be involved in local evaluations as members of the project team or as community researchers.

Dissemination: Our evaluations will provide clear information for local decision makers to act upon. We will present and share the research with communities, organisations, groups and individuals working nationally or in other areas who may find the evidence helpful. The research will be shared on social media and websites, as well as written up as reports. These materials will be prepared jointly with the public and practitioners to make them as relevant as possible.

4 Summary of Research (abstract)

LiLaC comprises researchers from Liverpool and Lancaster universities, collaborating with Directors of Public Health and members of the public, ready to deliver a Public Health Intervention Responsive Studies Team (PHIRST). We develop and evaluate public health policies/interventions and participate extensively in responsive evaluation schemes supporting local government. This includes NIHR School for Public Health Research's (SPHR) Public Health Practice Evaluation Scheme (PHPES), the NIHR Applied Research Collaboration (ARC) (formerly CLAHRC) NW Coast partner priority programme, and rapid responses to Covid-19, including two national pilots embedded in local government. Our interdisciplinary approach combines state-of-the art quasi-experimental methods, utilising our unique data platforms (e.g. www.cipha.nhs.uk, <https://pldr.org>), with in-depth qualitative approaches to assess the health inequality impacts of natural experiments and illuminate pathways to impact. Our approach to evaluation is underpinned by co-production and public involvement, with health equity embedded throughout the research process. Each of our PHIRST evaluations will follow a structured process co-produced with local authorities and the public.

First, an evaluability assessment will: review current evidence to determine the need for evaluation; develop actionable research questions; assess potential public health and inequalities impacts and consider practicalities such as data access/quality. This stage will define the next steps with the local authority, public advisers and PHR secretariat.

Second, a project evaluation group will be established to develop the research protocol and oversee the evaluation. A LiLaC researcher will lead this group and integrate inputs from our extensive research networks with representatives from the participating local authority. Members of the public will also be involved in the project team, recruited where possible from settings and localities where the local authority intervention is delivered. The research methods applied could include combinations of process, outcome and economic evaluation utilising experimental, quasi-experimental, observational and qualitative methods, depending on the overall evaluation purpose, time and resource constraints. Where feasible, local people will be trained as community researchers and academic researchers will be embedded within local government to contribute to the research.

Third, our evaluation delivery process will enable us to adapt research to local needs in collaboration with local partners, whilst producing robust findings. Learning will be rapidly applied as it emerges to improve local and national delivery. Our expertise in knowledge mobilisation will ensure that actionable recommendations are tailored for relevant audiences, delivered through appropriate channels and networks for maximum impact. People with lived experience and practitioners will be involved in developing outputs to ensure these reflect the concerns and priorities of these groups.

Finally, we will maximise opportunities for local government research capacity building during the study timeframe and beyond, within the budget available, proactively linking local authority partners to other resources within our ARC and SPHR networks.

5 The Team

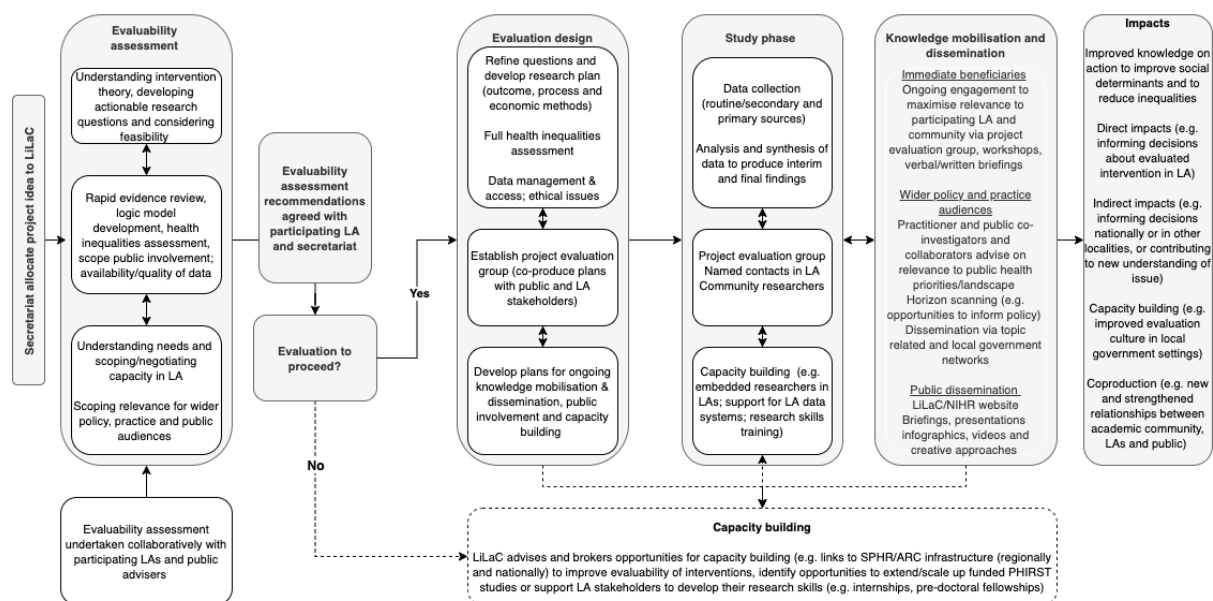
As an NIHR School for Public Health Research (SPHR) member since 2011, PHIRST @ [LiLaC](#) brings together unique multidisciplinary expertise, infrastructure, and capacity for rapid mixed methods Local Authority (LA) focused public health research. This includes researchers from: [Liverpool's Institute of Population Health](#) ([Barr](#), [Rodgers](#), [Taylor-Robinson](#), [Buchan](#)), including [Health Inequalities Policy Research Group](#); [Lancaster's Centre for Health Inequalities Research](#) ([Halliday](#), [Popay](#)); [Health Economics at Lancaster](#) ([Hollingsworth](#)); and [the Centre for Child and Family Justice Research](#) ([Broadhurst](#)). We will also leverage data/analytic teams in CIPHA ([Combined Intelligence for Population Health Action](#)) – a network of linked LA-NHS data/analytic cooperatives covering the north west and expanding across other parts of England ([Buchan](#), PI) – and [Lancaster's Data Science Institute](#) ([Broadhurst](#), Co-Director). The team includes two Directors of Public Health (Ashton and Karunanithi) with extensive strategic public health expertise, and public co-applicant (Durrani) and public collaborators (Cannon and Wilson) with lived expertise.

6 Research Plan

Our approach is informed by guidance and good practice^{3,4,5,6}, and underpinned by the principles of co-production⁷, public involvement^{8,9} and health equity assessment¹⁰. It utilises novel evaluation methods, integrating in-depth qualitative investigation with state-of-the-art quasi-experimental, econometric and simulation methods. Our place-based research platforms provide foundational data sources: combining multi-sectoral whole population linked datasets (e.g. [Place-based Longitudinal Data Resource\(PLDR\)](#), [CIPHA](#), [Rapid Intervention Causal Evaluation \(RICE\) tool](#)), with narratives on lived experiences of inequalities (e.g. [otherfrontline.org](#)). These enable a highly portable approach which can be flexed to quickly and cheaply evaluate public health interventions across the UK.

Planning and delivery of each PHIRST evaluation will follow a structured process in partnership with LAs and members of the public. Key elements of this process are detailed below (see figure 1: flow chart).

Figure 1: LiLaC @ PHIRST flowchart



6.1 Evaluability assessment

Following the allocation of a project to LiLaC, an evaluability assessment (EA) will be carried out drawing on existing methodologies.^{11,12} This will consider the following components:

The research gap. Where appropriate, a rapid review of current evidence on the intervention will determine the research gaps and assess the need for evaluative evidence. This will build on our previous work developing [methods for review and synthesis](#) and applying these in co-produced [rapid evidence reviews with local government colleagues](#).

The formation of actionable research questions. With LA representatives and PHIRST public advisers, we will develop an initial logic model of the intervention and theory of change, using approaches adapted from the Evidence Based Practice Unit¹³. This will be used to refine the evaluation purpose and assess if actionable research questions can be constructed.

The potential public health and health inequalities impact. We will assess the plausible sizes and distribution of an intervention's anticipated outcomes and the potential for the study to inform public health action across the local government sector. A health equity assessment will be undertaken at this stage using our Health Inequalities Assessment Toolkit (HIAT)¹⁰.

Scoping public involvement. We will review the extent of existing public involvement in the intervention as well as scoping structures to enable public involvement during the evaluation.

The feasibility of evaluation. We will review practicalities of conducting an evaluation including whether the intervention can be evaluated within available resources and time frames. This will include assessing: (1) the resources needed, scoping and negotiating the capacity within the participating authorities and PHIRST team (2) availability/quality of existing data within the intervention setting and our existing national data assets, and (3) the time window within which evidence would need to be produced to influence local and national decision-making processes.

These components will be assessed iteratively with the EA adapted for each intervention and as learning from the EA emerges. We understand that the scale of studies will vary, potentially ranging from a few months to two years. The EA will provide an appraisal of options and clear recommendations for future evaluation of the intervention, jointly agreed with the participating LA, public advisers and the PHIRST secretariat. Where the team recommends that an evaluation is not appropriate at this stage, we will collectively identify options for enhancing future

evaluability and alternative capacity building support where this cannot be resourced by PHIRST.

6.2 Evaluation design and capacity building

Following a decision to proceed we will bring together a Project Evaluation Group (PEG) to co-produce the research protocol. The PEG will include an evaluation lead and others with relevant expertise from across LiLaC and if necessary, our external networks, with representatives from the participating LA and members of the public. Depending on the overall purpose, time and resources, the evaluation could include combinations of process, outcome and economic components utilising experimental, quasi-experimental, observational and/or qualitative methods. Working with LA practitioners and members of the public we will ensure that contextual knowledge of the locality/intervention informs the evaluation's design. Particular attention will be applied to factors amplifying or dampening impact, to inform the generalisability of findings to other settings.

A designated contact in the participating LA will help the team to access and interpret routine data, including how data is collected and recorded over time. Where appropriate, a community researcher model will be considered involving training members of the public in a co-researcher role to carry out fieldwork such as observations using neighbourhood audit tools or photovoice methods.

The PEG will also finalise plans for public involvement, dissemination and knowledge mobilisation, drawing on good practice guidance including [SPHR's knowledge sharing principles](#). We will agree opportunities for capacity building during the study and beyond. This could include delivering research training within the participating LA or activities directly linked to the evaluation (e.g., embedded researchers or support to refine LA data systems).

6.3 Evaluation delivery

The PEG will oversee delivery of the evaluation based on the protocol. We will produce robust findings to agreed timelines and budgets, whilst ensuring that learning can rapidly be applied as findings emerge – within LAs to improve interventions/services directly, and across LAs by disseminating generalisable findings nationally. Data collection will utilise CIPHA and our expertise in accessing, extracting and quality assuring routine data, and capturing data de novo, for evaluation studies. We will deliver data analyses with local public health intelligence teams, co-located with them as needed, and connected as a virtual team via the emerging national network of Trusted Research Environments (TREs) on top of linked, routine data sources. This research-service analyst networking will maximise contextual understanding of the data and build data analytic capacity in local systems. The code from our data analyses will be made publicly available to other researchers and practitioners via repositories such as [GitHub](#). Findings will be synthesized to elaborate and refine the original logic model (developed during the EA), with attention paid to the intervention's impact on health inequalities.

6.4 Knowledge mobilisation and dissemination

Researchers will play a knowledge broker role during the evaluation process. For example, supporting LA partners to access and interpret evidence identified during the evaluability assessment and formulating actionable recommendations for programme adaption during the evaluation. Workshops involving practice and public representatives from the participating authority as well as our national collaborators will be used to develop recommendations that resonate with policy makers. Section 7 below further details translation of PHIRST research evidence into the public health system and wider society.

7 Dissemination and outputs

Each evaluation will include a dissemination plan using tools such as the [ESRC impact toolkit](#) and [guidance for health research dissemination](#) and drawing on team members' expertise of [mobilising knowledge for policy, practice and public audiences](#). We understand that it is important to address barriers and facilitators to evidence uptake within local government including time and resource constraints, political influences and organisational cultures, timeliness and salience of research⁵⁴ and differences in expectations of research.⁵⁵ Within LiLaC we are well positioned to address this challenge with expertise in public policy analysis and framing, as well as economics, law, implementation science and ethics across our multi-disciplinary team and networks.

As findings emerge with each evaluation, we will develop recommendations and key messages with public, policy and practitioner representatives and our national policy collaborators such as the Local Government Association, Association of Directors of Public Health, People's Health Trust and Local Trust. We will actively seek out opportunities to disseminate co-produced evidence through our extensive membership of local, national, and international decision-making committees, advisory panels and inquiries. After completion of each project we will follow up with each Local Authority to understand how recommendations are being taken forward and to scope opportunities for scaling up their implementation utilising local infrastructure such as the national ARC networks, Academic Health Science Networks and the SPHR.

Outputs will be jointly developed and peer reviewed by public and practitioner stakeholders to ensure they reflect the priorities of these groups,⁵⁶ and reduce the risk of research outputs inadvertently perpetuating stigma.⁵⁷ LiLaC routinely uses a range of formats to disseminate research findings and achieve impact. This includes local and national media; social media; videos; infographics; participants' and professional newsletters; presentations to community groups, schools, children's parliaments, select committees, service providers and councillors. In addition to peer-reviewed academic publications, we will produce accessible briefings and policy/practice focused reports and host workshops and seminars. Where resources and time permits, we will co-design more creative outputs such as [arts-based dissemination and engagement](#).

8 Project management and governance

8.1 Governance

LiLaC has been constituted as a collaboration between Liverpool and Lancaster universities since 2011 through a formal Collaborative Agreement which will provide the overarching governance structure for our PHIRST. Barr and Halliday will co-lead PHIRST@LiLaC with budgetary oversight for their respective institutions. The team's activities will be overseen by a PHIRST Steering Group comprising membership from our public and practitioner collaborators and co-applicants, including Local Government Association, People's Health Trust and Local Trust. This group will: ensure the research adheres to the highest standards; contribute to prioritisation of projects; oversee progress towards milestones and; support the team in maximising the impact of PHIRST research through links with practice, public and policy networks. Via Barr and Halliday, updates will be provided to LiLaC's management board which meets bi-annually overseeing LiLaC's portfolio of research. Barr and Halliday will chair monthly team meetings with co-investigators and PHIRST staff. A project evaluation group (PEG) will be established for each new evaluation with the research lead responsible for monitoring progress towards milestones.

8.2 Project management

Across all proposed evaluations the PHIRST Project Manager (PM) will utilise robust systems with administrative support to enable activities and outputs to be tracked over time with project plans developed for each new evaluation. This will include identifying resource requirements, establishing stakeholder communications and a timeline / Gantt chart of SMART milestones

for review at each team meeting. This will be supported by LiLaC's Standard Operating Procedures for data sharing, management and analysis. These enable a large expandable team of researchers to work flexibly over multiple responsive studies. For each project evaluation group (PEG) there will be a project lead from within the PHIRST team who will be responsible for updating the PM on progress against milestones and risks. The PM will populate a register of risks and issue resolution, recording items that are a risk to the project's milestones, costs or ability to achieve objectives, for review at monthly meeting. Project progress and escalated risks will be reviewed by the Steering Group. Regular interactions with participating LAs and the secretariat will update on progress and risks, and revise plans as needed.

8.3 Working and engaging with the PHR secretariat

The PHIRST will take a collaborative approach to working underpinned by openness, flexibility and responsiveness. Barr and Halliday will be the main point of contact for the secretariat, providing regular updates to ensure that the secretariat is fully informed of progress and successes, as well as alerted to any risks at an early stage. Our robust project management systems will ensure that the team can mobilise requests for information about outputs at short notice. Whilst communication with the secretariat will be ongoing, there are key stages where we envisage working closely with the secretariat, including decisions about project allocation, agreeing recommendations of the evaluability assessment and planning dissemination. The team is also committed to engaging with other PHIRSTs (for example, enabling other teams to access our networks and data platforms) and promoting formative learning for future evaluation schemes.

9 Ethics / Regulatory Approvals

Formal ethics committee processes are in place at both Lancaster and Liverpool University, with both universities committed to promoting a culture of ethical research that complies with the ESRC's research ethics framework. Each project will have a data protection and data management plan, and systems for managing lone working and fieldworker safety. Members of the LiLaC team are experienced and knowledgeable of specific ethical considerations related to children and young people and families (Broadhurst, Taylor-Robinson), qualitative research (Halliday; Popay) and information governance with respect to sensitive data (Barr; Buchan).

10 Patient and Public Involvement

The nominated research lead for each PHIRST evaluation will be the named point of contact for local public advisers who are part of each project evaluation group. A legacy of PI is considered both with regard to (i) individual members of the public who get involved in PHIRST activities and evaluations and (ii) the wider community living in the setting where a local PHIRST evaluation is undertaken.

- *Individual members of public:* We will aim to involve members of the public from the settings/ neighbourhoods/interest groups where local PHIRST evaluations are conducted as public advisers to evaluation studies. This will ensure that lived experience from local people is embedded throughout the research process. Beyond involvement in a local evaluation study, public advisers will have the opportunity to get involved in activities of the public PHIRST panel @ LiLaC (e.g. advising on plans for evaluations in other LA settings). We will also connect PHIRST public advisers to capacity building opportunities in other research programmes that we are involved in or to activities that are taking place within their region (e.g. training or workshop events). As opportunities are likely to vary locally, we will scope opportunities in each area, for example, by speaking to colleagues and public advisers connected to the School for Public Health Research (SPHR) and ARCs across the country.

- *Community legacy*: During the evaluation planning stage, we plan to scope the ways in which lived experience of relevant communities of interest or place has informed the priority setting for, and design of, the local authority interventions we are evaluating. We also expect that the process of co-production during the research (involving members of the public and practitioners co-designing the evaluation with researchers) will help build new relationships and may result in improved awareness and understanding about the benefits of public involvement among local authority partners. Where community researchers are actively involved in the research process (e.g. collecting and analysing data about local public health issues), this will contribute to a legacy by providing more detailed insights about the needs of local communities to inform future planning and development of interventions. Being trained and working as a community researcher can also have benefits for individuals involved which may be beneficial for wellbeing (e.g. improving confidence); also providing opportunities to develop new skills.

Using [PIIAF](#) and other guidance⁸, evaluation of PI will include maintaining progress and outcome logs, surveys of public advisers and reflective team activities as well as ongoing monitoring of involvement.⁵⁰

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